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**Dr. Desh Deshpande
Chairman and Co-Founder
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Docket #96-263 - Designing the Public Network

As chairman and founder of Cascade Communications Corp., a manufacturer of wide area networking equipment, my interest in the public network has been ongoing. My company is on the frontline of broadband communications. (see attached company backgrounder) From this vantage point, we see a growing need for long term solutions for transporting data traffic and have a clear vision of how this should happen. That is why I welcome this opportunity to submit my input on designing the public network.

The overall question is - should today's voice networks be changed to support increasing data traffic? The answer is no, rather than changing the existing network, a new data network should be established which is designed to support the unique requirements of computer-to-computer traffic. Today, there is simply not enough dial tone to go around - and it's getting worse. Corporate and private Internet use is growing every day. Experts predict that in just a few years, there will be more data traffic than voice traffic going across wide area networks.

Corporations reaching beyond their own organizations with networks to conduct business are re-engineering the selling chain across all major industries and making computers and networks a new selling medium. In this changing landscape, telephone

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switching equipment designed to handle short calls to random locations cannot handle the longer calls and increase in traffic to single sites made by data transactions.

The best course of action is a general restructuring of the communications industry to establish a separate worldwide "New Public Network" built specifically for data traffic. In addition to eliminating the need to transport data traffic over voice networks, this new broadband packet network would support any-to-any computing worldwide and ultimately connect every computer to every other computer.

It makes sense for the restructuring of the communications industry to be done by network service providers (NSPs) rather than private enterprises. This would include public carriers and Internet Service Providers. With large worldwide networks already in place, NSPs have the access to, and understanding of, wide area networks and can easily incorporate into their sites the changes needed to build the New Public Network. With NSPs taking over the set up and maintenance of networks, which is what they do best, companies will be free to concentrate on their core competencies rather than on the network.

To be effective, the new network must be standards based and draw on existing and new technologies (such as Wavelength-Division Multiplexing (WDM) and Digital Subscriber Line (xDSL)), enabling NSPs to leverage their assets and provide differentiated services at reasonable prices. It will be incumbent on equipment vendors to deliver to carriers the products and management solutions that leverage these assets and, in so doing, drive down the cost of bandwidth.

In the New Public Network, telephone companies will route data calls onto other switching systems or packet data networks to speed data traffic without impacting voice

networks. To establish the new network, NSPs will simply add equipment dedicated to data traffic to their existing environments. So instead of burdening voice switching devices (such as Digital Switches, Digital Access Cross Connects and Time Division Multiplexors) with data from packet networks, carriers will route data traffic through data switching devices and directly onto existing copper, fiber, cable, satellite or wireless links.

The dedicated data equipment required would include Frame Relay and ATM-based switches connected to Synchronous Optical Networks and Add Drop Multiplexers residing at the carrier site. Other requirements will be Digital Subscriber Loop technologies providing high-speed, low-cost access for residential and small business customers.

Designing the network with dedicated data devices eliminates the need to cut off the longer calls typical with modem data connections. This will allow users to stay connected 24 hours a day if necessary. As electronic commerce grows from approximately 20 billion to more than 200 billion dollars, the selling chain will become dependent on the New Public Network as the primary means for conducting business smoothly and continuously.

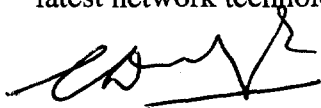
There is a question as to whether it is best for Internet Service Providers to be connected to the network via trunks or Primary Rate Interface (PRI) ISDN. The answer is both. This is because the Internet will become the primary consumer-to-producer interface during the next five years. As this transition occurs, there will be a strong requirement for very high-speed connectivity and support for multiple-access technologies of which PRI ISDN is one.

The New Public Network will require cost-effective computers, massive memory, and abundant bandwidth in the wide area. For carriers to be successful, they must offer reliable, differentiated, value-added services - such as support for SNA traffic, voice, video conferencing and many other types of traffic.

Companies increasingly are transitioning from leased lines to virtual circuits (which are more dynamic and less expensive) provided by public data networks. These circuits will build intranets for carrying secure information between company sites. Companies will migrate to public networks which can provide Internet Protocol (IP) services, Frame Relay, ATM, remote access and other services with reliability and redundancy exceeding what any one company could build on its own. In time a single public network will be able to support thousands of companies, connecting of multivendor equipment to reach beyond traditional customer bases and across huge networks. When this happens, the New Public Network will replace the voice network as the primary mode of transport.

In terms of deregulation and access, there are fundamentally different market forces with regard to data networking versus telephony. Today Regional Bell Operating Companies (RBOCs) enjoy a monopoly with regard to local access for telephony networks and are therefore highly regulated while in data networking, long distance carriers appear to have the advantage. It may be in the best interests of the public for the FCC to unencumber RBOCs of some regulations (such as Protocol translations restraints and LATA

boundaries), thus freeing them to establish Regional New Public networks that apply the latest network technologies from leading vendors.

A handwritten signature in black ink, appearing to read 'Desh Deshpande', with a horizontal line drawn underneath it.

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Bio

Gururaj Deshpande, Founder & Chairman, Cascade Communications Corp.

Gururaj "Desh" Deshpande founded Cascade Communications Corp. in 1990 on his vision of a complex but reliable public network where all computers would be connected. In his role as Chairman, Desh Deshpande is Cascade's visionary, providing overall product direction for the company. Cascade's scalable, carrier-class Frame Relay, ATM, and IP switching products, used by carriers and ISPs worldwide, are providing the foundation for the public network infrastructure for global communications.

Recognized throughout the industry as a networking visionary, Dr. Deshpande has predicted a gradual passing of the torch from the voice network to the data network leading to a major restructuring of the communications industry. He has garnered many top industry honors and been the subject of numerous business and trade press articles.

In naming Dr. Deshpande one of its 1996 Visionaries, Communications Week cited his major contributions to the future of digital communications in a networked society. Profiling Dr. Deshpande in its September 1, 1996 issue, Network Computing named him one of its Top 25 Technology Drivers shaping the way companies of the future will do business. A recent profile in Red Herring described him as a rare combination - a technical visionary who also has the ability to read markets.

Prior to Cascade, Dr. Deshpande in 1988 co-founded Coral Network Corporation, Marlboro, MA, a manufacturer of broadband network processors for high-speed wide and local area networks. He remained with the company until 1990 as vice president of engineering. From 1980 to 1988, he served in various capacities, including director of ISDN engineering, at Codex Corporation, a subsidiary of Motorola and leading supplier of integrated data communications systems and networking products.

Before entering the high technology industry, Deshpande was a lecturer at Queens University in Kingston, Canada from which he obtained his Ph.D. in Data Communications. He has a Masters degree in Electrical Engineering from the University of New Brunswick, Canada and a Bachelors degree in Electrical Engineering from the Indian Institute of Technology, Madras, India.

Corporate Overview

Cascade Communications Corp. (NASDAQ: CSCC) was founded in 1990 and is headquartered in Westford, Massachusetts, USA, with offices throughout the Americas, Europe, and Asia/Pacific. Cascade is at the forefront of broadband data communications with its family of scalable, carrier-class ATM, Frame Relay, Remote Access and IP switching products for public carriers and Internet Service Providers (ISPs). These products are providing a foundation for the global public network infrastructure.

Cascade switches currently are being deployed by more than 25 leading U.S. public carriers and ISPs including PSINet, UUNet, NetCom, AGIS, Savvis Communications and CRL Network Services. Cascade switches also have a significant presence at the core of non-U.S. networks including Telecom Finland, ISIS, British Telecom, AAPT, Deutsche Bundespost Telekom and China's Ministry of Post and Telecom (MPT).

Cascade uses direct sales, distribution channels and OEM relationships to sell and support its products throughout the world. From its headquarters in Westford, Massachusetts, USA, Cascade operates a 24-hour, seven-day-a-week technical response center staffed by trained software engineers to provide customer support.